



Potential Questions & Answers: 2008 Light Brown Apple Moth Program

Q: What are you doing differently than you were doing last time? And why?

A: With the advent of new tools, the California Department of Food and Agriculture (CDFA) and the United State Department of Agriculture (USDA) have developed treatment programs for three categories of infestations and are ready to move forward and treat:

1. Physically small, isolated infestations with a few moths trapped,
2. Physically larger infestations with several contiguous square miles infested and more moths trapped
3. And the physically largest infestations covering many contiguous square miles and the greatest number of moths trapped.

This approach allows CDFA/USDA to operationally select a set of tools that will reach all the target LBAM life stages within each treatment area.

Q: Are you using the same substance as aerial spraying?

A: The active material is the same—LBAM pheromone. The carrier may be different based on tests being conducted in New Zealand. These products are being evaluated for efficacy, longevity and ease of applications.

Q: Why are you changing the treatment material now, does it mean last time it was not effective?

A: There are three additional pheromone formulated products now available that were not available last year. CDFA/USDA are evaluating them, along with last year's formulation, to determine which is the best carrier to lengthen the interval between treatments. The active material in the aerial treatment is the same LBAM pheromone used in 2007.

Q: So is the new aerial product an insecticide/pesticide?

A: The new product will be a pesticide, but like last time, it does not kill the moth. The products under consideration for aerial treatment contain the same pheromone but use different bio-degradable carriers. Because the use of this product is intended to eliminate a population, the United States Environmental Protection Agency requires the product to be registered as a pesticide, however technically the product will not kill the LBAM. In contrast, CDFA/USDA uses the same product as lures in the traps, but because the intended use is to attract the moth to the trap, it does not, under these circumstances, need to be registered as a pesticide.

Q: What happens if the federal funding does not come through?

A: Program operations would have to be modified.

Q: Is it important enough to take funding away from other state programs when our state is already strapped, for example, education?

A: No different than previous years, the program must compete for funding.

Q: Why don't you use ground application all the time?

A: Given the size of the treatment area, ground application is not logistically feasible in terms of biological effectiveness in all situations. Ground application will be used in situations where CDFA/USDA can get the material to the targeted moth life stage. This is not possible in the heaviest and physically largest infestations where only aerial treatments of the pheromone will be biologically effective.

LBAM Q&A

Q: People obviously don't want this program, why do you continue to push it when we don't see any of the negative effects?

A: One would not expect to see negative effects in the early stages of a new pest introduction. The bottom line is that the establishment of LBAM threatens the life systems of California and the United States. The goal of the program is to be proactive and eradicate the problem before it becomes too large to eradicate and extensive damage occurs.

Q: Where is the emergency and urgency to this?

A: If the insect is not eradicated while the infestation is still small, CDFA/USDA will be forced to deal with increased pesticide use, plant and environmental damage, and potentially, quarantines forever. This insect will become a permanent unwanted resident in California and the rest of the United States.

Q: Can we see any visible damage?

A: Damage is hard to find, though some can be detected on foliage in the infested area. CDFA/USDA is being proactive to eradicate the pest before extensive damage occurs.

Q: Why are you coming back and spraying again?

A: The first aerial treatments were never expected to eradicate the LBAM from the state and eradication of the pest has not been completed. The mating disruption approach will not kill the moth as would be expected if CDFA/USDA would have used heavy pesticides. Since the aerial treatments do not kill the moth, it will take multiple treatments to gradually eradicate the pest.

Q: How long is the total eradication program?

A: The program will probably take at least 3-5 years. Remember, the program is based on mating disruption using a pheromone. It will take longer to eradicate the moth by this means. A traditional pesticide might have been a quicker approach, but the environmental and public health concerns would have been much greater.

Q: How do you guarantee accurate application of the products when there have been mishaps before?

A: Public safety is the primary concern. CDFA/USDA continually monitors each and every treatment to ensure that all program requirements are met. The airplanes are equipped with a GPS system to keep treatments on target. CDFA/USDA also deploy an environmental monitoring system to make sure the treatment only occurs during appropriate weather conditions and is effectively deliver within the treatment zone.

Q: Why are you looking to New Zealand to help solve the problem when it's not eradicated there?

A: Researchers in New Zealand and Australia have the most expertise with dealing with the moth and they are developing the tools that CDFA/USDA will use here. The moth is native to Australia and it invaded New Zealand years ago. In both countries the moth is too widespread to eradicate and they now use pesticide sprays to live with it. CDFA/USDA wants to prevent this from happening here.

Q: How do twist ties and aerial treatments work?

A: The twist ties and aerial pheromone treatments disrupt the communication between the moths, preventing the males from finding females.

Q: How does male moth attractant technique work?

A: The male moth attractant technique will be applied at approximate 8 feet high on utility poles and trees in the treatment area. The male moths are attracted to the spot where they crawl over a contact insecticide and perish.

LBAM Q&A

Q: How do the stingless wasps work?

A: The stingless Trichogramma wasps look for and lay their eggs in LBAM eggs. The wasp larvae hatch and eat the LBAM egg from the inside. These wasps will not bother the over-wintering monarch butterflies and they will not be released near threatened or endangered plants or butterflies and moths.

Q: What do you plan to do differently to communicate to the general public regarding health concerns, pets, property, etc?

A: We will continue to focus our efforts to provide the public with the information needed to understand this program clearly, including open communication with public officials, the media and individual Californians through meetings, mailings, hotlines, the CDFA web site, and other means.

Q: Should the public be concerned about their health and safety?

A: Public safety is our primary concern. Pheromones are extremely safe and if persons believe they have experienced sickness as a result of the pending treatments, they are advised to see their doctor. In Santa Cruz and Monterey, only a small number of reports were filed with their County's Public Health officer, and the other complaints have been duly logged and noted. Again, we have confidence that the pheromone is safe. That being said - state agencies (DPR, OEHHA) with jurisdiction for public health produced a Consensus Statement that evaluated the complaints and found "it is likely that exposure occurred at levels below those that would be expected to result in health effects."

All the research shows the moth pheromone is non-toxic to plants, animals and insects. It doesn't even hurt the moth. Any new products must meet rigorous standards for public health and safety. The pheromone materials CDFA/USDA use have been registered and approved for aerial treatment by the federal Environmental Protection Agency (EPA) and the state Department of Pesticide Regulation (DPR). Before registration, all product uses must pass a rigorous safety review to protect human health, wildlife, and the environment. This pheromone and many others like it are present in our environment every day as many insects use them to attract mating partners or signal other behaviors. Humans and other mammals do not use these insect pheromones and cannot detect them.

Q: Does this new program pose any risks?

A: Public safety is the primary concern. Any new products must meet the same rigorous standards for public health and safety as the old product did. White paper consensus statement on human health aspects of the aerial application of pheromones to combat the LBAM (Oct. 31, 2007, DPR/OEHHA/DPH): "While the toxicological information on the Checkmate product indicates that exposure to high levels of the applied material would be consistent with many of the reported symptoms, the application rate was extremely low, and it is likely that exposure occurred at levels below those that would be expected to result in health effects."

Q: There were reports of illness even when you were using the "benign" program, what about now?

A: All health complaints are reviewed and monitored by the appropriate agencies to determine if there is a risk to public health. If a resident believes they are ill, they should see their health care provider.

LBAM Q&A

Q: If I don't want applications applied to my property, how do I get out of it? Can the owner prevent application on private property?

A: No. In order to have a biologically sound program, CDFA/USDA cannot have a series of untreated refuges in which the moth can breed and re-infest treated areas, therefore the State of California can require access to private property in order to deal with a threat to the public.

Q: Isn't bird die-off connected to the pheromone treatment?

A: No. The Department of Fish and Game investigated the die-off and stated "*It turns out it's not a fish oil or vegetable oil product, as well as not being a petroleum oil or the light brown apple moth spray.*" The pheromone products CDFA/USDA uses are of very low toxicity to birds and wild life.

Q: We've heard that the increase in "Red Tide" algae growth in the Monterey Bay is attributed to the pheromone.

A: There is no evidence that the product caused these naturally occurring algal growths. Department of Fish and Game stated that "red tide" is a naturally occurring regular event.

Q: Do you plan to do water monitoring in 2008?

A: The CDFA Secretary's Environmental Advisory Task Force recommended a pilot water monitoring study which the department will implement.

Q: Why should I/the public care about eradication of the moth? Go spray agriculture, not urban dwellers.

A: We all live in a life system. If we don't fight the moth now, its population could explode with time resulting in increased pesticide load, not only in agriculture, but urban areas. CDFA/USDA knows this from past experience with pest infestations and the public's use of unrestricted insecticides. Further, more insecticide use later will result in unhealthy residuals on fruits and vegetables that the consumer ultimately eats.

Q: How much money are we asking for in 2008?

A: \$92 million in federal funds, with an additional \$5 million coming from existing federal funds. If not all the funds requested are granted, program operations would have to be modified.